

ABSTRACT

THz waves 4 on two different wavelengths are generated within a frequency range of about 0.5 to 3 THz, and
5 a subject matter 10 is irradiated with the THz waves on two wavelengths to measure their transmittances, and thus the presence of a target having wavelength dependence on the absorption of the THz wave is detected from a difference of their transmittances. Furthermore, a surface of the subject
10 matter is scanned two-dimensionally with each of the THz waves on two different wavelengths, and an image of a position where the transmittances of the two wavelengths differ is displayed two-dimensionally.